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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,989	04/30/2001	Gerald G. Giraldi	GIRALDI-1	1395

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EXAMINER

DUONG, THANH P

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 03/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,989

Applicant(s)

GIRALDI, GERALD G.

Examiner

Tom P Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-9, 11-14, 16-19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuff (5,505,450) in view of Turner (5,322,285) and MacKeil (5,098,103). Regarding claims 1-3, and 6, Stuff discloses a putter head comprising: a putter body (70) having a toe end, a heel end, and a face surface (72), and a non-metallic insert on the striking face (73). Stuff does not disclose a putter body with a face surface having a loft angle varied from the heel end to the toe end. However, Turner discloses a putter head having a face surface that has loft angles (1.25°, 2.75°, 4.25°) configuration that varies between the heel and toe end (Fig. 7). Turner teaches a changing or varying loft angle from toe to heel of the striking face area (Figure 7) to ensure the ball will not slice to left or right upon ball impact if the ball is either hit at the center, toe, or heel end portion of the putter face. MacKeil teaches a golf club having continuously varying loft angle from a positive loft angle to negative loft angle from the toe end to heel end of the bulge (Col. 2, lines 24-30) striking surface (Figure 1) and also makes its clear that the varying loft angles allows the ball to maintain its trajectory and desired spin whether the ball is hit at the toe or heel end of the striking face. Thus,

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it would have been obvious in view of Turner and MacKeil to one having ordinary skill in the art to modify the main body of Stuff to include a varying loft angle of the striking surface of Turner and/or MacKeil in order to compensate the trajectory and spin of the ball if a golfer hit at the toe or heel end which may result in an undesirable trajectory and spin. Regarding claim 2, the putter of Stuff inherently has an imaginary mid-line which extends along the center of the face from the heel to toe end. Regarding claim 4, it is inherent that the Figure 16 putter of Stuff has a radius of curvature and the selection of an optimum range of curvature such as 54-90 inches would have been obvious matter of optimization. Furthermore, MacKeil shows a striking face with varying radius of curvature due to its varying loft face angle and Official Notice is taken that it is known in the art to fabricate golf club head with various radius of curvature in order to control spin and flight direction. Regarding claim 5, Stuff shows on Figures 14-16 that the insert has varying thickness along the mid-line. With respect to claim 7, the maximum loft angle under USGA requirement is ten degrees or less; thus, it would have been obvious for any manufacturer to fabricate the putter with any optimum loft angle just as long as it comply with USGA requirement. Regarding claim 8, Stuff shows on Figures 14-16 that the insert or 110, 220, and 130 have several contoured striking faces which conform to the loft angle. Regarding claim 9, it is clear that the putter of Stuff in view of Turner and MacKeil has a rear surface twisted, as best understood by Examiner, along a dissimilar path from the front surface. Note the curved (twisted) rear surface in Figures 2 and 5. Regarding claim 11, Turner shows on Figure 5 a putter having a shaft (2) and a handle grip (1) and the rest of the limitations

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are described in claims 1-9 above, and are rejected for the same reasons as applied above. Claims 12, 13, 14, 16, 17, 18, and 19 disclose limitations similar to claims 4, 8, 9, 5, 1-3, 8, and 9, respectively. With respect to claims 22, USGA requires the striking surface insert having a minimum value of 90 Shore A hardness; thus, it is inherent that the golf putter of Turner and Stuff must have a surface hardness value at least 90 Shore A.

2. Claims 10, 15, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior arts as applied in claims 1-9, 11-14, 16-19 and 22, and further in view of Viollaz et al. (5,310,185) and Werner et al. (6,319,150). With respect to claims 10, 15, 20, and 21, the prior art does not disclose the rear surface of the insert having a plurality of sections and each section has its own radius of curvature. However, Viollaz et al. shows a convex insert 18 molded to the striking face and this insert provides a resilient surface which increases the restitution and absorb shock; thus increasing the flight distance. Werner et al. shows on Figure 9 the honeycomb structure face is curved having a front 87 and rear skin 88 to reduce mass in the face to optimize the center of gravity, and the rear surface has a plurality of sections with changing thickness; therefore, each section has its own radius of curvature. Thus, it would have been obvious in view Viollaz and Werner of one having ordinary skill in the art to modify the putter the prior art having an insert of Viollaz and plurality of sections of Werner to provide a putter head with increases the restitution and absorb shock, and optimize the center of gravity.

Response to Arguments

Applicant's arguments filed 12/23/02 have been fully considered but they are not persuasive. Applicant argue that neither Stuff or Turner disclose a golf club where the loft angle consistently changes along the striking face from the heel of the striking face to the toe of the striking face. Having different loft angle for a given striking face of a club head is well known in the art. The loft angle controls flight distance, spin, and trajectory of the ball upon impact. There is nothing unobvious about incorporating the teaching of varying loft angle of Turner and/or continuously varying positive loft angle to negative loft angle from toe to heel of the striking face of MacKeil's invention in Stuff's patent. Both Turner and MacKeil's invention clearly teaches the benefits of having such varying loft angle feature to compensate or correct the trajectory, spin, and flight distance if a golfer strikes the ball at the toe or heel end portion of the striking face. By incorporating the teachings of Turner and/or MacKeil in Stuff's invention, the claimed invention is obvious over the prior art as presented in the above rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (703) 305-4559. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Sewell can be reached on (703) 308-2126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7768 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4148.

Tom Duong
March 4, 2003


Paul T. Sewell
Supervisory Patent Examiner
Group 3700